

What Is Claimed Is:

1. An image reader having a conveying part that conveys an original, and first and second reading parts that read the original conveyed by the conveying part, in which if the same image has been read by the first and second reading parts, a density value of a read image obtained from the first reading part is higher than a density value of a read image to be obtained from the second reading part, comprising:

a noise detection part that judges, if a difference between density values of the same area on the original read by the first and second reading parts, respectively, exceeds a predetermined threshold, that a streaks-shaped noise is contained in the read image obtained by the first reading part; and

a noise removal part that generates, if the noise detection part judges that the streaks-shaped noise is not contained in the read image obtained by the first reading part, an output image using the read image obtained by the first reading part, and that generates, if the noise detection part judges that that the streaks-shaped noise is contained in the read image obtained by the first reading part, the output image using the read image obtained by the second reading part.

2. An image reader having a conveying part that conveys an original, and first and second reading parts that read the original conveyed by the conveying part, in which if the same image has been read by the first and second reading parts, a

~~density value of a read image obtained from the first reading part is higher than a density value of a read image to be obtained from the second reading part, comprising:~~

~~a threshold correction part that determines an average density difference between average densities of the same area on the original read by the first and second reading parts, respectively, and that corrects a predetermined threshold on the basis of the average density difference and outputs the corrected threshold; and~~

~~a noise detection part that judges, if a difference between density values of the same area on the original read by the first and second reading parts, respectively, exceeds the threshold outputted from the threshold correction part, that a streaks-shaped noise is contained in the read image obtained by the first reading part.~~

3. The image reader according to Claim 2, further comprising:

~~a correction part that corrects the read image obtained by the second reading part on the basis of the average density difference determined by the threshold correction part; and~~

~~a noise removal part that generates, if the noise detection part judges that the streaks-shaped noise is not contained in the read image obtained by the first reading part, an output image using the read image obtained by the first reading part, and that generates, if the noise detection part judges that the streaks-shaped noise is contained in the read image obtained by the first reading part, the output image using the~~

~~read image obtained by the second reading part, which has been subjected to the correction by the correction part.~~

4. An image reader, having a conveying part that conveys an original, and first and second reading parts that read the original to be conveyed by the conveying part, in which if the same image has been read by the first and second reading parts, a density value of a read image to be obtained from the first reading part is higher than a density value of a read image to be obtained from the second reading part, comprising:

a correction part that corrects the read image of either the first or second reading part to reduce an average density difference between average densities of the same area on the original read by the first and second reading parts, respectively; and

a noise detection part that judges, after the read image obtained by either the first or second reading part has been corrected by the correction part, if a difference between density values of the same area on the original read by the first and second reading parts, respectively, exceeds a predetermined threshold, that a streaks-shaped noise is contained in the read image obtained by either the first or second reading part that has a higher density value.

5. The image reader according to Claim 4, further comprising:

a noise removal part that generates, if the noise detection part judges that the streaks-shaped noise is not contained in the read image obtained by the first or second

~~reading part having the higher density value, an output image using the read image obtained by the reading part having the higher density value, which has been subjected to the correction by the correction part, and that generates, if the noise detection part judges that the streaks-shaped noise is contained in the read image obtained by the reading part having the higher density value, the output image using the read image obtained by the other reading part having lower density value, which has been subjected to the correction by the correction part.~~

6. An image reading method that reads an image by a first reading part from an area on an original conveyed by a conveying part, and then reads the image by a second reading part from the same area on the original to generate an output image, in which a density value of a read image obtained by the second reading part is lower than a density value of a read image obtained by the first reading part, comprising the steps of:

judging whether a difference between the density values of the read images obtained by the first and second reading parts, respectively, exceeds a predetermined threshold; and

generating, if it is judged that the difference does not exceed the predetermined threshold, the output image using the read image obtained by the first reading part, and generating, if it is judged that the difference exceeds the predetermined threshold, the output image using the read image obtained by the second reading part.

7. An image reading method that reads an image by a first reading part from an area on an original conveyed by a conveying

part, and then reads the image by a second reading part from the same area on the original to generate an output image, in which a density value of a read image obtained by the second reading part is lower than a density value of a read image obtained by the first reading part, comprising the steps of:

determining an average density difference between average densities of the same area on the original read by the first and second reading parts, respectively;

correcting a predetermined threshold and the read image obtained by the second reading part on the basis of the average density difference;

judging whether a difference between the density values of the read images obtained by the first and second reading parts, respectively, exceeds the corrected threshold; and

generating, if it is judged that the difference does not exceed the corrected threshold, the output image using the read image obtained by the first reading part, and generating, if it is judged that the difference exceeds the corrected threshold, the output image using the read image obtained by the second reading part.

8. An image reading method that reads an image by a first reading part from an area on an original conveyed by a conveying part, and then reads the image by a second reading part from the same area on the original to generate an output image, in which a density value of a read image obtained by the second reading part is lower than a density value of a read image obtained by the first reading part, comprising the steps of:

~~correcting at least one of the read images obtained by~~
the first and second reading parts, respectively, to reduce an average density difference between average densities of the same area on the original read by the first and second reading parts, respectively;

judging whether a difference between the density values of the read images, at least one of which has been corrected, obtained by the first and second reading parts, respectively, exceeds a predetermined threshold; and

generating, if it is judged that the difference does not exceed the predetermined threshold, the output image using the read image obtained by the first reading part, and generating, if it is judged that the difference exceeds the predetermined threshold, the output image using the read image obtained by the second reading part.